



Product designation

Power contactor

Product type designation

B145

Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	250
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 250
	AC-1 ($\leq 55^\circ\text{C}$)	A 235
	AC-1 ($\leq 70^\circ\text{C}$)	A 190
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 150
	AC-4 (400V)	A 57
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	400V	kW 80
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW 91
	400V	kW 150
	500V	kW 196
	690V	kW 270
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A 220
	110V	A 110
	220V	A —
	330V	A —
	460V	A —
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A 220
	110V	A 150
	220V	A 130
	330V	A —
	460V	A —
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	75V	A 220
	110V	A 150
	220V	A 150
	330V	A 130
	460V	A —
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	75V	A 220
	110V	A 150
	220V	A 150

	330V	A	150
	460V	A	130
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	160
	110V	A	80
	220V	A	–
	330V	A	–
	460V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	160
	110V	A	120
	220V	A	90
	330V	A	–
	460V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	160
	110V	A	140
	220V	A	120
	330V	A	90
	460V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	160
	110V	A	140
	220V	A	140
	330V	A	140
	460V	A	90
Short-time allowable current for 10s (IEC/EN60947-1)		A	1300
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1500
	500V	A	1400
	690V	A	1200
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	I _{th}	W	14.5
	AC-3	W	6.8
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	13.3
	max	lbin	13.3
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1
	min	lbin	0.74
	max	lbin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
	AWG/Kcmil		
	max		4/0

Power terminal protection according to IEC/EN 60529			IP00	
Mechanical features				
Operating position		normal allowable	Vertical plan ±30°	
Fixing			Screw	
Weight		g	6080	
Conductor section		AWG/kcmil conductor section	max	4/0
Operations				
Mechanical life		cycles	10000000	
Electrical life		cycles	1100000	
Safety related data				
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles cycles	1100000 10000000
Mirror contats according to IEC/EN 609474-4-1			yes	
EMC compatibility			yes	
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz		min max	V V	220 240
AC operating voltage				
of 50/60Hz coil powered at 50Hz pick-up		min max	%Us %Us	80 110
drop-out		min max	%Us %Us	20 60
of 50/60Hz coil powered at 60Hz pick-up		min max	%Us %Us	80 110
drop-out		min max	%Us %Us	20 60
of 60Hz coil powered at 60Hz pick-up		min max	%Us %Us	80 110
drop-out		min max	%Us %Us	20 60
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz		in-rush holding	VA VA	300 10
of 50/60Hz coil powered at 60Hz		in-rush holding	VA VA	300 10
Dissipation at holding ≤20°C 50Hz			W	10

DC coil operating

DC rated control voltage

min	V	220
max	V	240

DC operating voltage

pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	60

Average coil consumption $\leq 20^{\circ}\text{C}$

in-rush	W	300
holding	W	10

Max cycles frequency

Mechanical operation

cycles/h 2400

Operating times

Average time for Us control

in AC

Closing NO

min	ms	60
max	ms	100

Opening NO

min	ms	25
max	ms	60

in DC

Closing NO

min	ms	60
max	ms	100

Opening NO

min	ms	25
max	ms	60

UL technical data

Full-load current (FLA) for three-phase AC motor

at 480V	A	124
at 600V	A	125

Yielded mechanical performance

for three-phase AC motor

200/208V	HP	50
220/230V	HP	50

General USE

Contactor

AC current	A	250
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Short-circuit protection fuse, 600V

Standard fault

Short circuit current	kA	5
Fuse rating	A	500
Fuse class		RK5

Ambient conditions

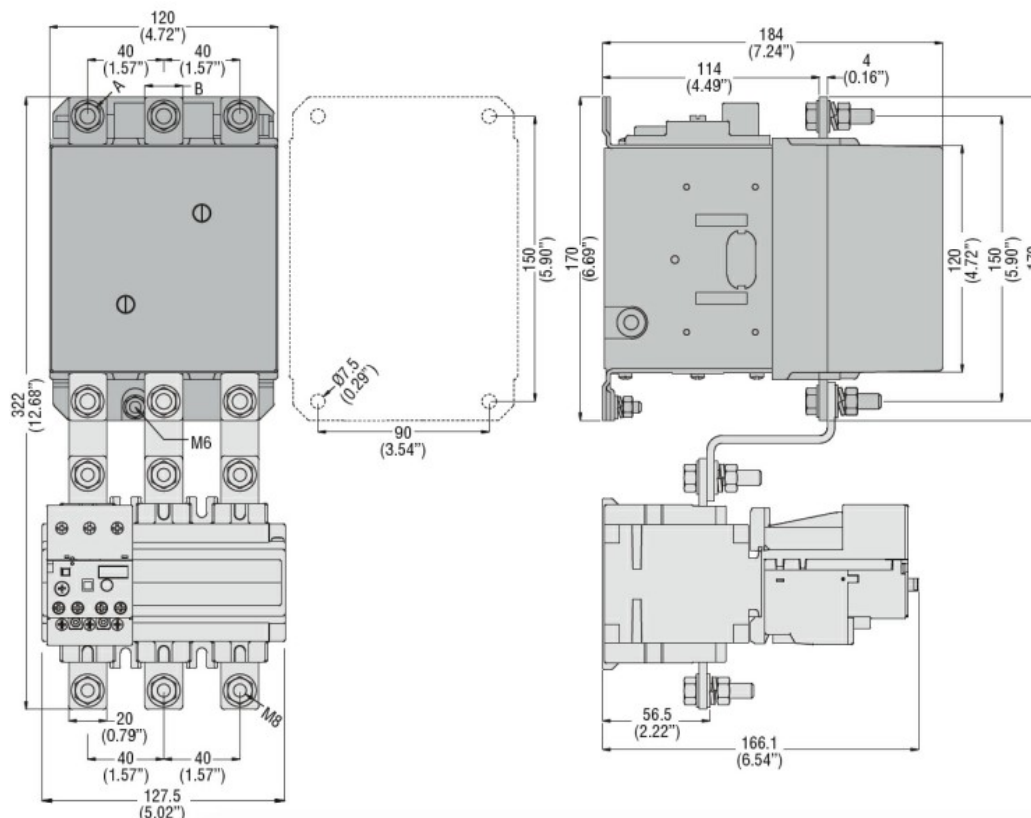
Temperature

Operating temperature

min	$^{\circ}\text{C}$	-50
max	$^{\circ}\text{C}$	70

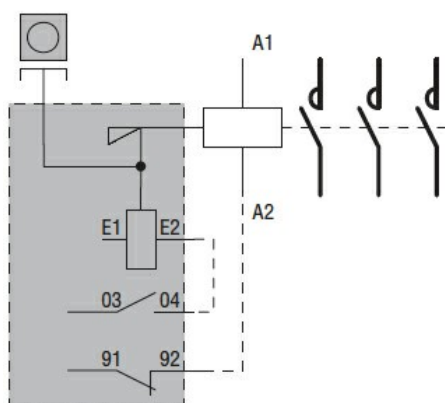
Storage temperature

	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



CONTACTOR TYPE	A	B
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60947-1
IEC/EN 60947-4-1
UL 60947-1
UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching